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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,150	10/06/2003	Minh-Tan Ton-That	942071	5746
33798	7590	07/01/2005	EXAMINER	
ANISSIMOFF & ASSOCIATES RICHMOND NORTH OFFICE CENTRE SUITE 201 235 NORTH CENTRE RD. LONDON, ON N5X 4E7 CANADA			WATKINS III, WILLIAM P	
			ART UNIT	PAPER NUMBER
			1772	
DATE MAILED: 07/01/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/678,150

Applicant(s)

TON-THAT ET AL.

Examiner

William P. Watkins III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5,9-11 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,8-11 and 21-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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**DETAILED ACTION**

1. Applicant's election without traverse of Group I, claims 1-11 and 21-22 in the reply filed on 31 March 2005 is acknowledged.

2. The rejections over Eysel et al. are withdrawn in view of applicant's arguments and amendments filed 31 March 2005.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Don et al. (U.S. 5,643,390).

See col. 4, lines 10-40 which teaches a thermoplastic layer that is interlocked with a carbon fiber layer and a thermosetting resin layer on the other side of the carbon fiber layer that is also interlocked. The thermoplastic and thermosetting resins do not have to be compatible.

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5. Claims 1-3, 9, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Jacaruso et al. (U.S. 5,264,059).

See col. 2, line 65 through col. 3, line 45 and the abstract. The reference teaches a thermoplastic that embeds half of a fiber layer and a thermosetting plastic on the other side of the fabric. There is no chemical bond between the two plastic layers (col. 2, lines 15-30). The laminate is used to bond other substrate layers together.

6. Claims 1-5 and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Leatherman (U.S. 3,900,360).

See the abstract, claim 1, col. 6, lines 15-25. The reference teaches a glass fiber layer with two incompatible thermoplastic layers that are used to bond other substrate layers to the laminate.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the

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art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 21-22, 25-26 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacaruso et al. (U.S. 5,264,059) in view of Smith et al. (U.S. 6,132,323) and Leatherman (U.S. 3,900,360).

Jacaruso et al. teaches a fiber layer with a thermoplastic on one side and a thermosetting resin on the other that may be incompatible (see col. 2, line 65 through col. 3, line 45 and the abstract). Leatherman teaches the use of polypropylene as a thermoplastic that can be used in a bonding layer and the use of a glass fabric (col. 6, lines 15-30, col. 3, lines 35-50). Smith et al. teaches the use of multiple fiber layers in a thermoplastic and thermosetting laminate with epoxy resin being used as a thermosetting resin (abstract, col. 1, lines 25-40). The instant invention claims the use of polypropylene as a thermoplastic layer, a glass fiber inter layer and an epoxy thermosetting resin on the other side of the fiber layer as well as multiple fiber layers. It would have been obvious to one of ordinary skill in the art to have used polypropylene as a thermoplastic binder, glass fibers as an interlayer and an epoxy resin as a thermosetting resin in the bonding laminate of Jacaruso et al. as the secondary references teach that these are

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specific compounds that function well in thermoplastic and thermosetting resin interlayer laminates.

9. Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacaruso et al. (U.S. 5,264,059) in view of Smith et al. (U.S. 6,132,323) and Leatherman (U.S. 3,900,360) as applied to claims 21-22, 25-26 and 11 above, and further in view of Williams et al. (U.S. 3,239,403).

Williams et al. teach the use of glass type adhesives as well as thermoplastic and thermosetting adhesives in interlayer bonding laminates (col. 2, lines 25-35). The instant invention claims a glass interpenetrating layer on one side of a fiber layer and a thermosetting layer on the other. It would have been obvious to one of ordinary skill in the art to have substituted a glass type adhesive for the thermoplastic of Jacaruso et al. as modified above as Williams et al. teaches these types of adhesives as alternatives to thermoplastic and thermosetting adhesives in heat bonded laminates.

10. Applicant's arguments with respect to claims 1-5, 9-11 and 21-26 have been considered but are moot in view of the new ground(s) of rejection.

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11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

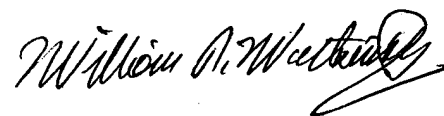
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Watkins III whose telephone number is 571-272-1503. The examiner works an increased flex time schedule, but can normally be reached Monday through Friday, 11:30 A.M. through 8:00 P.M. Eastern Time. The examiner returns all calls within one business day unless an extended absence is noted on his voice mail greeting.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be

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reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



WW/ww

June 26, 2005

**WILLIAM P. WATKINS III**  
**PRIMARY EXAMINER**